WHAT IS CLAIMED IS:

1. An apparatus, comprising:

a semiconductor substrate;

a photoreceptor, formed in said semiconductor substrate; and

a separated semiconductor well, formed in said semiconductor substrate, and including at least a storage node, separated from said photoreceptor, and selectively coupled to receive a photoelectrically induced signal from said photoreceptor.

2. An apparatus as in claim 1,further comprising a light shield, shielding said storage node against receiving incoming light.

3. An apparatus as in claim 2,wherein said photoreceptor includes a photodiode.

4. An apparatus as in claim 2,wherein said photoreceptor includes a photogate.

5. An apparatus as in claim 1,further comprising, in said separated semiconductor well, a bridge diffusion, coupled to

receive said photoelectrically induced signal from said photoreceptor, and a transfer gate, coupled between said bridge diffusion and said storage node, and activated to couple said photoelectrically induced signal from said bridge diffusion to said storage node.

6. An apparatus as in claim 5, further comprising a light shield, shielding said separated semiconductor well against incoming light.

7. An apparatus as in claim 6, wherein said semiconductor well is an N type well, and wherein said transfer gate is a P type gate

8. An apparatus as in claim 7, wherein said photoreceptor is a photodiode which is an N well type photodiode.

9. An apparatus as in claim 6 further comprising a storage node reset well, in said separated semiconductor well, and a storage node reset gate, selectively activated to connect said storage node reset well to said storage node to reset a photoelectrically induced signal in said storage node.

10. An apparatus as in claim 9,further comprising a photoreceptor reset semiconductor well, biased to a reset level, and a photoreceptor reset gate, selectively activated to connect said photoreceptor and bridge diffusion to said photoreceptor reset semiconductor well to reset a value in said photoreceptor.

11. An apparatus as in claim 5, further comprising first and second reset structures, in said separated semiconductor well, said first reset structure operating to reset a value of said storage node, and said second reset structure operating to reset a value of said photoreceptor.

12. An apparatus as in claim 1, further comprising a light shield, shielding said separated semiconductor well against incoming light.

13. An apparatus as in claim 11, wherein said photoreceptor is a photodiode.

14. An apparatus as in claim 11, wherein said photoreceptor is a photogate, and further comprising a bridge diffusion within said photogate, isolating an output of said photogate.

15. An apparatus as in claim 14, further comprising an anti blooming gate, coupled to said photogate.

16. An apparatus as in claim 12, further comprising a second separated semiconductor well formed in said semiconductor substrate, said second separated semiconductor well including at least said photoreceptor therein.

17. An apparatus as in claim 16, further comprising a photoreceptor reset well in said second separated semiconductor well, and a photoreceptor transfer gate, selectively activated to connect a reset level in said photoreceptor reset well to said photoreceptor.

18. An apparatus as in claim 17, further comprising an anti blooming gate located within said second separated semiconductor well.

19. An apparatus as in claim 16, further comprising a first bridge diffusion within said separated semiconductor well, and a second bridge diffusion within said second separated semiconductor well.

20. An apparatus as in claim 19, further comprising a storage node reset well, maintaining a reset level, and located in said separated semiconductor well, and a storage node reset gate, also located within said first separated semiconductor well, activated to selectively connect said storage node to said reset level within said storage node reset well.

21. An apparatus as in claim 2,wherein said photo electrically induced signal is charge.

22. A method, comprising:

receiving a photoelectrically induced signal in an array of photoreceptors on a semiconductor substrate;

controlling each photoreceptor in the array of photoreceptors to simultaneously start an integration period and to simultaneously in the integration period;

at the end of each integration period, controlling each photoreceptor in the array of photoreceptors to transfer its photoelectrically induced signal to a separated storage node; and

preventing said separated storage node from integrating charge during a time other than during said integration period.

23. A method as in claim 22, wherein said preventing comprises forming said separated storage node in a separate semiconductor well within the semiconductor substrate.

24. A method as in claim 23, wherein said preventing further comprises forming said separated storage node with a light shield overlying at least said separated storage node.

25. A method as in claim 23, wherein said preventing further comprises forming said separate semiconductor well with a light shield overlying said semiconductor well.

26. A method as in claim 22, wherein said preventing comprises shielding said separated storage node from incoming light.

27. A method as in claim 25, further comprising enabling a first reset operation which resets a value of said storage node, and enabling a second reset operation, which resets a value of said photoreceptor.

28. A method as in claim 27, wherein said first and second reset operations each comprises activating a gate within said separate semiconductor well.

29. A method as in claim 28, wherein said photoelectrically induced signal is a signal indicative of charge.

30. A method as in claim 28, wherein said photoreceptor includes a photodiode.

31. A method as in claim 28, wherein said photoreceptor includes a photogate.

32. A method as in claim 25, further comprising preventing said photoreceptor from acquiring a photoelectrically induced signal which is greater than a specified amount.

33. A method as in claim 25, further comprising forming a second separated semiconductor well for each of the plurality of photoreceptors in the array.

34. An apparatus, comprising:

a semiconductor substrate;

an array of photoreceptors, formed in said semiconductor substrate, each photoreceptor in the array forming a pixel circuit, and each pixel circuit including a photoreceptor

portion, and a separated storage portion, separated from said photoreceptor portion, said storage portion being formed in a separated first semiconductor well, and each said separated first semiconductor well also including a light shielding portion which shields said storage portion against incoming light, said separated first semiconductor well also including a reset well, and including a first gate operating to reset said storage portion by selectively connecting said storage portion to a value in said reset well, and a second gate operating to reset an associated photoreceptor, by selectively connecting a value of said photoreceptor to a value in said reset well.

35. An apparatus as in claim 34, further comprising a bridge diffusion, within each said first semiconductor well, said bridge diffusion coupled to said photoreceptor, and further comprising a sampling gate between said bridge diffusion and said storage portion, activated to couple said photoelectrically induced signal from said bridge diffusion to said storage portion.

36. An apparatus as in claim 35, wherein said photoreceptors include photogates.

37. An apparatus as in claim 34, wherein said photoreceptors include photodiodes.

38. An apparatus as in claim 34, further comprising an anti blooming gate, coupled to an associated photoreceptor, and operating to prevent said associated photoreceptor from accumulating photoelectrically induced signal that is greater than a specified amount.

39. An apparatus as in claim 34, wherein said light shield portion is a metal light shield.

40. An apparatus as in claim 34, wherein said separated first semiconductor well is an N type well.

41. An apparatus, comprising:

a semiconductor substrate;

a first semiconductor well in said semiconductor substrate, which first semiconductor well is isolated from said semiconductor substrate, said first semiconductor well including a photoreceptor therein; and

a second semiconductor well, separated from said first semiconductor well, and located in said semiconductor substrate, said second semiconductor well including a storage node,

selectively connected to receive photoelectrically induced signal from said photoreceptor in said first semiconductor well.

42. An apparatus as in claim 41, further comprising a light shield, associated with said second semiconductor well, and shielding at least part of said second semiconductor well against reception of incoming light.

43. An apparatus as in claim 41, further comprising a bridge diffusion in said second semiconductor well, and coupled to said photoreceptor, and a transfer gate, coupled between said bridge diffusion and said storage node, and selectively activated to couple said photoelectrically induced signal from said bridge diffusion to said storage node.

44. An apparatus as in claim 41, further comprising a reset structure in said second semiconductor well, operating to reset a value of said storage node.

45. An apparatus as in claim 44, wherein said reset structure includes a reset well which is biased to a reset level, and a reset gate, which is activated to couple said reset well to said storage node.

46. An apparatus as in claim 41, further comprising a photoreceptor reset structure, operative to reset a value of said photoreceptor.

47. An apparatus as in claim 46, wherein said photoreceptor reset structure is located in said first semiconductor well.

48. An apparatus as in claim 47, wherein said photoreceptor reset structure includes a reset well, which is biased at a reset level, and a photoreceptor reset gate, coupled between said reset well and said photoreceptor, and which is activated to couple said reset well to said photoreceptor.

49. An apparatus as in claim 41, wherein said photoreceptor includes a photogate.

50. An apparatus, comprising:

a semiconductor substrate;

a plurality of pixels located in said semiconductor substrate, each of said plurality of pixels comprising:

a) a photoreceptor;

b) a separated semiconductor well, formed of a semiconductor type which separates said semiconductor well from said substrate, and including:

i) a light shield, shielding said separated semiconductor well against incoming light;

ii) a reception node, connected to and receiving a value indicative of photo electrically induced signal from the photoreceptor:

iii) a storage node, separated from said reception node; and

iv) a transfer gate, coupled between said reception node and said storage node, and activated in each of said plurality of pixels substantially simultaneously to transfer signal from said photoreceptor in each of said plurality of pixels to said storage node in each of said plurality of pixels; and

c) first and second reset gates, a first reset gate controlling reset of a value in said photoreceptor, and a second reset gate controlling reset of a value in said storage node.

51. An apparatus as in claim 50, wherein said first and second reset gates are each located within said separated semiconductor well.

52. An apparatus as in claim 50, wherein one of said first and second reset gates are located within said separated semiconductor well, and the other of said first and second reset gates is not located within said separated semiconductor well.